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| 24126 7590 02/16/2011 ST. ONGE STEWARD JOHNSTON & REENS, LLC 986 BEDFORD STREET STAMFORD, CT 06905-5619 | | | EXAMINER | |
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte LONE ANDERSEN and HELLE WITTORFF

Appeal 2010-004369 Application 10/529,137 Technology Center 1700

Before ADRIENE LEPIANE HANLON, KAREN M. HASTINGS, and MICHAEL P. COLAIANNI. Administrative Patent Judges.

HASTINGS, Administrative Patent Judge.

DECISION ON APPEAL¹

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 1, 3-7 and 9-55². An oral hearing was held

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

Appeal 2010-004369 Application 10/529,137

February 3, 2011. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM

Claim 1 is illustrative of the subject matter on appeal:

 Chewing gum comprising at least one biodegradable polymer and chewing gum ingredients, wherein said chewing gum ingredients are selected from the group consisting of softeners, sweeteners, flavoring agents, active ingredients, fillers, and mixtures thereof; and wherein said chewing gum contains from about 0.01 to about 2.0 weight percent water by weight of the chewing gum.

The Examiner maintains, and Appellants appeal, the following rejections under 35 U.S.C. § 103(a)³:

- 1) claims 1, 3-7, 9-39 and 49-55 as unpatentable over Grijpma⁴;
- claims 40-48 as unpatentable over the combined prior art of Grijpma and Meyers⁵;
- 3) claims 1-30, 32-42, 46, 47, and 49-55 as unpatentable over $\label{eq:condition} \mbox{Goldberg}^6;$
- 4) claim 31 as unpatentable over the combined prior art of Goldberg and either of Grijpma or Li^7 ;

² Claims 2 and 8 have been cancelled (see App. Br. 6).

³ The Examiner also provisionally rejected the claims under obviousness-type double patenting over numerous co-pending US applications (Final 12; see also App. Br. 23); however, Appellants state they are "not appealing these rejections (App. Br. 24; emphasis in original). Accordingly, we summarily affirm these obviousness-type double patenting rejections.

⁴ US 5.672.367, issued Sep. 30, 1997.

⁵ US 5.433,960, issued Jul. 18, 1995.

⁶ WO 01/47368 A1, pub. Jul. 5, 2001.

⁷ US 6,153,231, issued Nov. 28, 2000.

5) claim 43-45 and 48 as unpatentable over the combined prior art of Goldberg and Meyers.

MAIN ISSUE ON APPEAL

Did the Examiner reversibly err in determining that the claimed chewing gum would have been obvious over either Grijpma or Goldberg, because, as alleged by Appellants, neither reference provides any guidance as to the water content (App. Br. 14, 16), and neither reference teaches or suggests the claimed water content of .01 to 2.0 weight percent (App. Br. 15, 17)?

We answer this question in the negative.

PRINCIPLES OF LAW

In assessing whether a claim to a combination of prior art elements would have been obvious, the question to be asked is whether the improvement of the claim is more than the predictable use of prior art elements according to their established functions. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 417 (2007). The analysis need not seek out precise teachings directed to the specific subject matter of the claim, for it is proper to take account of the inferences and creative steps that a person of ordinary skill in the art would employ. Id. at 418.

The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. These cases have consistently held that the Appellants must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Peterson*, 315 F.3d

1325, 1328-1329 (Fed. Cir. 2003). *In re Peterson* also instructs us that "[t]he normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to [optimize ranges]." 315 F.3d at 1330. *See also In re Boesch*, 617 F.2d 272, 276 (CCPA 1980) ("[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art."); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955) ("where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.").

ANALYSIS

with Factual Findings

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we are in agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejection for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

Appellants' arguments that neither one of Grijpma and Goldberg explicitly teach the water content of the gum described therein and also do not teach or suggest the claimed water content range (App. Br. 13-15) are unavailing for all of the reasons aptly pointed out by the Examiner (Ans. 22-32). Specifically, we agree with the Examiner's finding that one of ordinary skill in the art was aware that biodegradable polymers break down in the presence of water, as evidenced by Grijpma (Ans. 4, 8, 9). Thus, the ordinary artisan would have appreciated that water content is a result

effective variable in a gum containing biodegradable polymer since the polymer will break down in the presence of water (*id.*).

Furthermore, Appellants have not provided any persuasive technical reasoning or evidence to refute the Examiner's determination that the artisan would have appreciated that water content is a known result effective variable in a biodegradable gum (*see generally* App. Br.; Reply Br.). As pointed out by the Examiner, each reference teaches ranges of many known gum ingredients that overlap the ranges taught or claimed herein for the ingredients of the gum (Ans. 4, 5, 9). Thus, Appellants' arguments that one would not have optimized these ingredients to obtain the claimed water content are unavailing, noting that Appellants' attorney's arguments do not take the place of evidence in the record. *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974).

Appellants have also not relied upon any evidence of unexpected results (see generally App. Br.; Reply Br.).

Under these circumstances, Appellants have not shown reversible error in the Examiner's determination that the subject matter of independent claim 1 would have been prima facie obvious over the teachings of either of Grijpma or Goldberg.

Appellants have not presented any additional arguments specific to any of the dependent claims, even those rejected separately.

For the reasons stated above and in the Answer, we sustain all of the \$ 103 rejections of the appealed claims \$.

8 Only those arguments actually made by Appellants on the record have been considered in this decision. Arguments which could have been made but

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The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED

Ssl

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that Appellants chose not to make have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(vii) (2008).